

CLAIMS

## WHAT IS CLAIMED IS:

1. A method for developing software, the method comprising:  
defining a focus area which represents:  
5 a business process to be performed by the software  
under development; and  
one or more first participants in said business process,  
at least one of said first participants having a plurality of roles;  
decomposing said focus area into one or more sub-focus  
10 areas, each of said sub-focus areas including:  
a subset of said business process; and  
one or more second participants in said subset of said  
business process, each of said second participants having only a single one of said  
plurality of roles;  
15 creating a use case based on a first one of said one or more  
sub-focus areas, said use case comprising an instance of usage, by a one of said  
second participants, of a first subset associated with said first one of said sub-focus  
areas; and  
creating source code to perform acts performed in the course  
20 of providing said first subset of said business process.
2. The method of claim 1, wherein said decomposing step comprises:  
decomposing said first focus area into an intermediate-level  
focus area which includes:  
25 a subset of said business process; and  
one or more third participants, at least one or more of  
said third participants having more than one of said plurality of roles; and  
further decomposing said intermediate-level focus area to  
produce a second one of said sub-focus areas.

3. The method of claim 1, wherein said focus area is represented as a specification including a plurality of fields, and wherein said method further comprises:

- 5        propagating one or more of said plurality of fields to each of  
said sub-focus areas; and  
         creating, for each of said sub-focus areas, a set of fields based  
on the one or more propagated fields.

10        4. The method of claim 3, wherein said plurality of fields comprises a  
business background field, and wherein said propagating act comprises propagating  
said business background field to each of said sub-focus areas.

15        5. The method of claim 3, wherein said plurality of fields comprises  
an assumptions field which comprises a set of assumptions, and wherein said  
propagating act comprises propagating said assumptions field to each of said sub-  
focus areas.

20        6. The method of claim 5, wherein said act of propagating said  
assumptions field comprises propagating fewer than all of the assumptions in said  
set of assumptions.

25        7. The method of claim 3, wherein said plurality of fields comprises a  
functional requirements field, and wherein said propagating act comprises  
propagating said functional requirements field to each of said sub-focus areas.

8. The method of claim 3, wherein said plurality of fields comprises a  
business goals field, and wherein said propagating act comprises propagating said  
business goals field to each of said sub-focus areas.

30        9. The method of claim 8, wherein said act of propagating said  
business goals field comprises propagating a sub-goal field.

10. The method of claim 3, wherein said plurality of fields comprises a business goals field, and wherein at least one of said sub-focus areas is an implementation use case, and wherein said propagating act comprises propagating  
5 said business goals field to each of said one or more focus areas exclusive of said implementation use case.

11. The method of claim 1, further comprising:  
specifying a temporal relationship among at least two of said  
10 one or more focus areas.

12. A method for providing computer-assisted software engineering comprising:  
receiving first information indicative of a first focus area, said  
15 first focus area representing:  
a set of first requirements for software to be developed; and  
a set of first participants in the use of said software;  
receiving a division of said set of first requirements which  
20 indicates a plurality of separate first aspects of said set of first requirement;  
displaying said set of first requirements and said set of first participants;  
receiving second information indicative of a second focus area, said second focus area including:  
25 a set of second requirements for a one of said first aspects; and  
a set of second participants who participate in a use of said one of said first aspects, said second set of participants being based on said first set of participants;  
30 receiving a division of said set of second requirements which indicates a plurality of separate second aspects of said set of second requirements;

displaying said set of second requirements and said set of second participants;

receiving third information which includes:

a set of third requirements for a one of said second

5 aspects; and

a set of third participants who participate in a use of said one of said second aspects, each of said third participants having only a single role with respect to said one of said second aspects; and

generating a use case based on said third information, said use  
10 case defining an instance of the operation of said software by a one of said third participants participating in said one of said second aspects.

13. The method of claim 12, further comprising:

providing a template which comprises a requirements field

15 and a participants field;

and wherein said act of receiving first information comprises:

storing said set of first requirements in said requirements field; and

storing said set of first participants in said participants field;

20 and wherein said act of receiving second information comprises:

storing said set of second requirements in said requirements field; and

storing said set of second participants in said participants field;

25 and wherein said act of receiving third information comprises:

storing said set of third requirements in said requirements field; and

storing said set of third participants in said participants field.

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14. The method of claim 12, wherein said method further comprises:

providing a template which comprises a plurality of fields  
which represent a use case;

and wherein said generating act comprises:

displaying said template with at least some of said plurality of  
5 fields containing information which is based on said third information.

15. The method of claim 12, wherein:

said first information further comprises a set of first  
assumptions about said software to be developed;

10 said second information further comprises a set of second  
assumptions about said first aspect; and

said third information further comprises a set of third  
assumptions about said second aspect.

15 16. The method of claim 12, wherein:

said first information further comprises a set of first business  
goals relating to said software to be developed;

said second information further comprises a set of second  
business goals relating to said first aspect; and

20 said third information further comprises a set of third business  
goals relating to said second aspect.

17. The method of claim 12, wherein:

said first information further comprises first business  
25 background information relating to said software to be developed;

said second information further comprises second business  
background information relating to said first aspect; and

said third information further comprises third business  
background information relating to said second aspect.

18. A computer-readable medium encoded with computer-executable instructions which instruct a computing device to perform a method, the method comprising:

- receiving first information indicative of a first focus area, said  
5 first focus area representing:
  - a set of first requirements for software to be  
developed; and
  - a set of first participants in the use of said software;  
receiving a division of said set of first requirements which  
10 indicates a plurality of separate first aspects of said set of first requirement;  
displaying said set of first requirements and said set of first  
participants;
  - receiving second information indicative of a second focus  
area, said second focus area including:  
15 a set of second requirements for a one of said first  
aspects; and
  - a set of second participants who participate in a use of  
said one of said first aspects, said second set of participants being based on said first  
set of participants;
  - 20 receiving a division of said set of second requirements which  
indicates a plurality of separate second aspects of said set of second requirements;  
displaying said set of second requirements and said set of  
second participants;
  - receiving third information which includes:  
25 a set of third requirements for a one of said second  
aspects; and
  - a set of third participants who participate in a use of  
said one of said second aspects, each of said third participants having only a single  
role with respect to said one of said second aspects; and

generating a use case based on said third information, said use case defining an instance of the operation of said software by a one of said third participants participating in said one of said second aspects.

5                   19. The computer-readable medium of claim 18 wherein the method further comprises:

                  providing a template which comprises a requirements field and a participants field;

and wherein said act of receiving first information comprises:

10                   storing said set of first requirements in said requirements field; and

                  storing said set of first participants in said participants field; and wherein said act of receiving second information comprises:

15                   storing said set of second requirements in said requirements field; and

                  storing said set of second participants in said participants field;

and wherein said act of receiving third information comprises:

20                   storing said set of third requirements in said requirements field; and

                  storing said set of third participants in said participants field.

                  20. The computer-readable medium of claim 18, wherein the method further comprises:

25                   providing a template which comprises a plurality of fields which represent a use case;

and wherein said generating act comprises:

                  displaying said template with at least some of said plurality of fields containing information which is based on said third information.

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21. The computer-readable medium of claim 18, wherein:

said first information further comprises a set of first assumptions about said software to be developed;

said second information further comprises a set of second assumptions about said first aspect; and

5                   said third information further comprises a set of third assumptions about said second aspect.

22. The computer-readable medium of claim 18, wherein:

10                   said first information further comprises a set of first business goals relating to said software to be developed;

                  said second information further comprises a set of second business goals relating to said first aspect; and

                  said third information further comprises a set of third business goals relating to said second aspect.

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23. The computer-readable medium of claim 18, wherein:

                  said first information further comprises first business background information relating to said software to be developed;

20                   said second information further comprises second business background information relating to said first aspect; and

                  said third information further comprises third business background information relating to said second aspect.